

ABSTRACT OF THE DISCLOSURE

5 A combination roofing panel and solar module includes a flexible membrane sheet, such as a single-ply membrane sheet, and a plurality of elongated solar or photovoltaic modules arranged side-by-side, end-to-end, or adjacent each other. The modules are adhered to the flexible membrane, and the edges of the modules having electrical connectors or electrodes are arranged to face each other or be aligned with each other. The electrical connectors may be connected by a solder connection to module electrodes through apertures in a bottom surface of the flexible membrane and are connected in series. Alternatively, the electrical connectors may be connected to leads that terminate in a conduit located adjacent to the electrical connectors. In this case, connections between modules may be made by connecting the leads in the conduit. The series electrical connectors are connected directly to direct current (DC) electric devices, to a combiner box, to another panel or to an inverter which provides converts direct current (DC) to alternating current electricity for use in residential, commercial or industrial building structures. The ends and elongated edges of a roofing component or panel having the flexible membrane and modules can be sealed for protection.

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